DOCUMENT RESUME

ED 050 129 TM 000 178

AUTHOR	Davis, Junius A.
TITLE	Faculty Perceptions of Students: Desirability and Perception of Academic Performance, Part IV.
INSTITUTION	Educational Testing Service, Princeton, N.J.
SPONS AGENCY	College Entrance Examination Board, New York, N.Y.
REPORT NO	RB-64-13
PUB DATE	Mar 64
NOTE	13p.
EDRS PRICE	EDRS Price MF-$0.65 HC-$3.29
DESCRIPTORS	*Academic Performance, Admission Criteria, Cluster Grouping, Colleges, College Students, College Teachers, Correlation, Factor Analysis, Factor Structure, Individual Characteristics, Intelligence Factors, *Personality Assessment, Rating Scales, *Student Characteristics, *Student Evaluation, Success Factors, *Teacher Attitudes

ABSTRACT

This report, a continuation of the study described in TM 000 174 and TM 000 176, employs identical data and similar methods to determine the nature of desirability separate and apart from the rater's perception of the student's academic performance (rather than his actual performance). The results show an absorption in the faculty perception of performance of much of the variance previously associated with dependability, intellectual ability and values, motivation, self-sufficiency/creativity, and maturity in defining desirability apart from academic performance. The analysis tends, however, to accentuate the contribution of other traits, notably ethicality, likableness, open-mindedness, and altruism. It appears that desirability is highly related to perception of academic performance, and that other areas, normally expected to make an honest contribution to performance (dependability and motivation, for example) are perceived by the faculty to do so. There is a remaining reliable variance in Scholastic Aptitude Test (SAT) scores and actual grades which is related neither to perception of performance nor desirability. See TM 000 177 and TM 000 179-000 181. (Author/DG)

ED050129

FACULTY PERCEPTIONS OF STUDENTS

IV. Desirability and Perception of Academic Performance

Junius A. Davis, Developmental Research Division, ETS

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

TM 000 178

Research Bulletin
RB-64-13
March 1964

EDUCATIONAL TESTING SERVICE
Princeton, New Jersey

FACULTY PERCEPTIONS OF STUDENTS

IV. Desirability and Perception of Academic Performance

Abstract

A previous study in this series was devoted to the definition, using the diagonal method of factoring, of student desirability separate and apart from academic performance. Variables employed consisted of ratings of students by faculty on 80 traits, as well as high school and college grade averages and SAT scores.

In the present study, the same data and similar methods were employed to determine the nature of desirability separate and apart from the rater's perception of the student's academic performance (rather than his actual performance).

The results tend to show an absorption in the faculty perception of performance of much of the variance previously associated with dependability, intellectual ability and values, motivation, self-sufficiency/creativity, and maturity in defining desirability apart from academic performance. The results tend, however, to verify or accentuate the contribution of other traits, notably ethicality, likableness, open-mindedness, and altruism. It does appear that desirability is highly related to perception of academic performance, and that other areas normally expected to make an honest contribution to performance (e.g., dependability, intellectual ability and values, motivation, and self-sufficiency/creativity) are perceived by the faculty to do so. Finally, there is remaining reliable variance in SAT and actual grades, as well as in such previously established areas as conformity and extraversion, which is related neither to perception of performance nor desirability.

FACULTY PERCEPTIONS OF STUDENTS

IV. Desirability and Perception of Academic Performance

Introduction

In a previous study (Davis, 1964b) concerned with faculty definition of the desirable student, multi-trait ratings of students by faculty were employed to determine the nature of desirability separate and apart from academic performance. As general desirability, academic performance, and positive ratings on other traits are interrelated, the problem involved (a) establishing a criterion of academic performance, (b) using statistical procedures to separate out that portion of reliable variance in desirability and the other trait ratings that is not attributable to differences in academic performance, and (c) determining interrelationships among these residuals.

Thus, using the freshman grade-point average (FGPA) as the criterion of academic performance, it was found that faculty define desirability separate and apart from academic performance primarily in terms of intellectual values, ethicality, likableness, independent creativity, open-mindedness, altruism, maturity, and self-insight.

However, the subjects were students in the raters' classes, and it may be assumed that the raters have firsthand knowledge of each student's performance. Some of the variance found in desirability apart from FGPA may be attributable to variance in the faculty member's perception of the student's performance; some of the variance that desirability and FGPA have in common may not be attributable to the rater's perception of performance, which may differ from FGPA as a function of the particular course area or instructor.

The present analysis, then, is directed toward the definition of desirability apart from perception of performance rather than from the consensus expressed by FGPA. Do the previous components hold? Also, what traits are related to the individual perception of performance?

Subjects and Basic Data

The 696 sets of ratings employed in the basic study (Davis, 1964b) were again used for this analysis; these involved 407 faculty raters and 398 students at eight institutions. Good communality estimates, essential to the diagonal factoring method to be employed, were drawn from factor analyses performed as part of the broader study. The ratings were those provided by the Student Rating Form (Davis, 1964a), where 80 traits, plus SAT-V, SAT-M, High School Rank, and Freshman Average Grade provided variables for the 84 x 84 matrix.

Procedure

The diagonal method of factoring (Thurstone, 1947) was employed. This procedure permits removal of that portion of the reliable variance in one measure that is related to a given criterion, to permit identification of the remaining reliable variance in the measure, through correlates, which is not related to the criterion.

A first factor was defined by a vector placed through the criterion, a rating-scale variable calling for rating on "academic performance." The residual variance for a measure of desirability, defined by a rating of the student as "the kind of student the institution should (or should not) admit,"

was used to define a second orthogonal factor. Loadings of the other rating-scale variables, and SAT-V, SAT-M, High School Rank, and FGPA were computed for these two factors. Thus, the first factor absorbs all the variance in the academic performance rating; loadings of other variables on this factor show the extent of reliable associated variance. The second factor is, by definition, desirability apart from what is measured by Factor I, and loadings of other variables on Factor II may aid in defining it. Finally, a third factor was defined by placing a vector through a point defined by the SAT-V residual (after the variance attributable to performance and desirability was removed), to determine the nature of remaining reliable variance in SAT.

Results and Discussion

Results are presented in Table 1, which provides rating-scale item identification, communalities, loadings on the three constructed factors, and residual communalities. (For ready comparison, comparable data from the previous study are reproduced as Table 2.) Rating-scale variables are grouped in clusters indicated by a separate factor analysis employing the equimax rotation (Davis, 1964c).

It is immediately apparent from these data that desirability apart from rater perception of performance does not seem as complex as does desirability apart from actual grade performance. In the first place, the loading of desirability on perception of performance is .72, against a value of .42 (Table 2), on FGPA. This not only implies that desirability is more highly related to what the instructor believes performance to be than to what it is (or <u>was</u>, through the freshman average), but also that the second factor--

Table 1

Factor Loadings: Diagonal Factoring with Vectors Placed Through Perception of Academic Performance (I), Desirability (II), and SAT-V (III)

Item	Content	h^2	I (GPA)	II (80)	III (SAT-V)	Res Com
1.	High academic performance	71	84	00	00	00
80.	Kind of S institution should admit	63	72	33	00	00
-	SAT-V	56	20	-27	67	00
-	SAT-M	52	19	-21	64	03
-	Freshman GPA	54	53	-22	28	13
-	High School Rank	31	28	-08	20	19
DEPENDABILITY						
2.	works steadily	63	48	03	09	39
14.	meets deadlines	57	43	16	04	36
38.	thorough	77	66	18	03	30
62.	completes undertakings	61	50	17	02	33
50.	industrious	76	64	18	-05	32
61.	performs to top of ability	58	58	-09	-11	22
26.	self-disciplined	64	54	23	-05	29
INTELLECTUAL ABILITY						
49.	intellectually quick	82	79	00	11	18
13.	above average	73	82	00	07	05
28.	good at analyzing	70	72	10	17	14
25.	good grasp of abstract	68	63	16	22	21
37.	makes good grades with ease	61	62	-15	12	19
CONFORMITY						
12.	conforming	67	-10	-13	-20	60
48.	orthodox in behavior	58	07	00	-21	53
24.	conventional	67	-29	-17	-17	53
60.	accepts majority values	44	-06	12	-09	41
72.	has few idiosyncrasies	42	-14	-18	05	37
INTELLECTUAL VALUES						
10.	broad intellectual interests	75	61	22	22	28
8.	culturally rich	65	44	30	11	35
46.	reads widely	55	44	22	24	25
64.	intellectually versatile	65	62	25	26	14
73.	high intellectual curiosity	80	70	37	21	13
34.	interested in ideas	69	63	49	24	00
21.	intellectually mature	71	73	25	15	09
ETHICALITY						
19.	honest	71	36	59	16	21
43.	acts ethically	64	29	52	11	27
67.	principled	70	36	53	18	26
MOTIVATION						
56.	high motivation to achieve	65	61	12	-01	26
3.	high interest in chosen field	44	54	06	-08	14
70.	a serious student	71	66	28	15	17
22.	eager to learn	78	71	32	07	17
68.	values like those of faculty	39	40	39	12	08
LIKABLENESS						
5.	pleasant	72	32	56	08	30
29.	likable	78	35	67	12	19
65.	affable	67	19	45	09	43
17.	cooperative	61	39	52	15	16
78.	good sense of humor	58	27	54	14	20
EXTRAVERSION						
42.	extraverted	66	-04	-18	-01	63
6.	gregarious	68	03	23	05	62
71.	placid	58	-24	-04	-14	50
63.	optimistic	54	18	33	10	39
79.	high level of physical energy	39	37	33	-01	14
SELF-SUFFICIENCY/CREATIVITY						
31.	self-directing	59	54	12	06	28
16.	shows originality	77	67	26	27	18
4.	imaginative	77	66	29	24	19
7.	independent	55	50	27	18	19
52.	creative	69	61	33	19	17
40.	deep	63	59	37	15	12
OPEN-MINDEDNESS						
45.	open-minded	67	41	49	19	23
57.	fair-minded	61	30	57	20	16
69.	open to new experience	55	37	48	20	14
77.	generally objective in forming opinions	53	39	48	23	09
9.	flexible	57	34	34	12	32
41.	willing to take directions	56	29	42	07	29
58.	realistic in outlook	51	40	24	20	25
33.	willing to ask questions	56	45	39	23	15
ALTRUISM						
51.	high concern for welfare of others	76	15	59	14	37
27.	altruistic	58	16	45	15	33
15.	interested in others	65	15	61	13	24
75.	high respect for human dignity	47	32	56	16	03
MATURITY						
20.	socially mature	71	37	37	07	43
44.	sophisticated	55	27	14	04	46
74.	at home in college culture	53	43	38	16	18
POPULARITY						
30.	leader among peers	64	30	33	10	43
18.	active in campus life	55	15	31	03	43
66.	works well with others	57	24	23	05	46
54.	liked by peers	60	21	43	12	36
ANXIETY						
11.	seldom worries	51	05	10	-02	50
23.	calm	51	13	11	-06	48
55.	low need for reassurance	45	18	11	03	40
53.	stable	65	40	15	-01	47
35.	happy	64	24	36	00	45
SELF-INSIGHT						
47.	good self-understanding	54	36	45	16	18
59.	positive family influence	18	11	23	15	09
32.	personal goals clear	51	47	24	04	23
STATUS-CENTEREDNESS						
39.	not status-centered	42	08	40	09	25
36.	low need to stand out	48	-21	08	01	43
76.	modest	58	06	44	06	38

Table 2

Factor Loadings: Diagonal Factoring with Vectors Placed Through GPA (I), Desirability (II), and SAT-V (III)

Item	Content	I (GPA)	II (80)	III (SAT-V)	Res Com
-	Freshman GPA	74	00	00	00
80.	Kind of S institution should admit	42	67	00	00
-	SAT-V	49	-22	53	00
-	SAT-M	29	-09	68	00
-	High School Rank	55	-09	-14	00
DEPENDABILITY					
2.	works steadily	23	38	10	42
14.	meets deadlines	18	43	15	33
38.	thorough	34	58	13	30
62.	completes undertakings	17	52	20	27
50.	industrious	31	58	05	33
61.	performs to top of ability	32	37	-01	34
26.	self-disciplined	29	51	03	30
INTELLECTUAL ABILITY					
49.	intellectually quick	52	51	18	25
13.	above average	56	53	11	13
28.	good at analyzing	47	53	23	14
25.	good grasp of abstract	44	48	23	20
37.	makes good grades with ease	49	29	15	27
1.	high academic performance	62	52	-02	06
CONFORMITY					
12.	conforming	-15	-08	-13	63
48.	orthodox in behavior	00	07	-21	53
24.	conventional	-24	-25	-13	53
60.	accepts majority values	-11	-05	00	43
72.	has few idiosyncrasies	01	24	-02	36
INTELLECTUAL VALUES					
10.	broad intellectual interests	34	54	31	24
8.	culturally rich	22	48	36	24
46.	reads widely	27	42	29	22
64.	intellectually versatile	43	52	27	12
73.	high intellectual curiosity	44	66	22	12
34.	interested in ideas	30	73	32	00
21.	intellectually mature	40	65	24	07
ETHICALITY					
19.	honest	18	57	11	35
43.	acts ethically	13	48	06	39
67.	principled	13	56	21	32
MOTIVATION					
56.	high motivation to achieve	34	50	06	28
3.	high interest in chosen field	25	45	03	18
70.	a serious student	39	60	19	16
22.	eager to learn	37	69	15	14
68.	values like those of faculty	22	48	10	10
LIKABLENESS					
5.	pleasant	09	56	08	39
29.	likable	10	64	12	34
65.	affable	02	42	12	48
17.	cooperative	09	62	24	17
78.	good sense of humor	02	54	22	24
EXTRAVERSION					
42.	extraverted	-01	14	02	63
6.	gregarious	00	15	01	66
71.	placid	-23	-13	-08	50
63.	optimistic	06	32	11	42
79.	high level of physical energy	12	38	00	23
SELF-SUFFICIENCY/CREATIVITY					
31.	self-directing	31	44	12	28
16.	shows originality	40	59	33	15
4.	imaginative	38	60	31	16
7.	independent	32	47	26	15
52.	creative	34	59	25	16
40.	deep	31	62	20	11
OPEN-MINDEDNESS					
45.	open-minded	19	56	21	27
57.	fair-minded	16	50	14	31
69.	open to new experience	23	49	15	24
77.	generally objective in forming opinions	19	54	25	14
9.	flexible	12	46	19	31
41.	willing to take directions	07	47	11	32
58.	realistic in outlook	19	43	-05	28
33.	willing to ask questions	24	52	26	16
ALTRUISM					
51.	high concern for welfare of others	01	44	10	56
27.	altruistic	06	36	11	44
15.	interested in others	-01	47	11	42
75.	high respect for human dignity	09	57	19	11
MATURITY					
20.	socially mature	11	52	16	41
44.	sophisticated	13	27	08	45
74.	at home in college culture	25	50	14	20
POPULARITY					
30.	leader among peers	17	38	08	46
18.	active in campus life	04	29	02	47
66.	works well with others	05	34	14	44
54.	liked by peers	08	39	10	42
ANXIETY					
11.	seldom worries	03	08	-06	50
23.	calm	04	16	-06	48
55.	low need for reassurance	15	15	-03	41
53.	stable	19	38	05	47
35.	happy	04	41	04	47
SELF-INSIGHT					
47.	good self-understanding	13	52	21	20
59.	positive family influence	04	21	16	12
32.	personal goals clear	27	45	04	24
STATUS-CENTEREDNESS					
39.	not status-centered	-05	31	11	31
36.	low need to stand out	-12	-11	-05	46
76.	modest	-08	32	08	47

desirability apart from performance--has a much smaller portion of variance left to define it. Thirty of the other rating-scale items load higher on Factor II than does residual desirability. Second, many of the clusters of items which loaded higher on Factor II than on I in the original analysis (Table 2) now give the higher loadings to Factor I. In fact, the loadings on Factor I gain and the loadings on Factor II lose, in most cases. Notable exceptions where loadings on Factor II gain in the present analysis include the following variables: honest, acts ethically, likable, affable, fair-minded, high concern for welfare of others, altruistic, interested in others, liked by peers, not status-centered, and modest. Dependability variables become almost entirely a matter of perception of performance, as do ratings of traits grouped under intellectual ability, motivation, and self-sufficiency/creativity. Ratings under ethicality, likableness, and altruism remain, from the original group, as the only areas where loadings on performance tend to be low and loadings on the desirability residual tend to be high.

Instrument factors surely account for part of the different results for rating-scale variables in the present analysis. Halo in the ratings probably accounts in large part for the fact that more variance is absorbed in a first factor defined by a criterion internal to the instrument. Considering the low loading of the desirability criterion on the factor it defines and the fact that many rating-scale variables load higher on this factor than does the desirability criterion, any generalizations should be tempered by the obvious difficulties faculty have in separating desirability from perception of performance that may in this situation stretch the meaning of the second factor to other areas.

It is interesting to note that SAT and High School Rank do not relate as highly to the instructor's perception of performance as to the freshman grade-point average, although greater reliability of FGPA could, of course, account for this. Nevertheless, the relationship of SAT and HSR to desirability apart from performance is, as before, negative, as is now the relationship of FGPA.

Whatever may constitute Factor II, actual grade performance is not recognized in any positive sense; indeed, this would not be expected. This residual desirability factor, by its construction, defines a student not recognized for his performance, but who is desirable on other grounds. This student emerges as one of lower actual performance and lower SAT scores, but who stands out as honest and ethical, pleasant and cooperative, interested in and concerned for others, and not status-centered. He is a comfortable person to be with, though (in traits not associated with performance) neither particularly extraverted nor introverted, conforming nor nonconforming, anxious nor free from anxiety. He is not fraught with problems that make him appear anxiety-ridden, unorthodox or odd, unpopular, unevenly motivated or uniquely creative; he appears to be a pretty stable, pleasant, noncontroversial sort, valued for the fact that he is not an irritant, or because he is on the right side of the broader societal values.

Of greater import in this analysis, perhaps, is the insight it provides about the faculty formulation of "good" performance. Loadings on Factor I, perceptions of performance, show that faculty believe that those who perform are industrious and work oriented; able (however ability may be conceived); interested in ideas or intellectually curious; motivated, serious, and eager to learn; and imaginative, independently creative. They do not, as noted,

relate perceptions of the student's performance to conformity, ethicality, likability, extraversion, popularity, anxiety level, or altruism. Students who are perceived as likable and cooperative, honest, or nobly altruistic are nice to have around, regardless of performance level; nevertheless, such perceptions do not bias evaluation of academic performance.

Finally, brief note may be taken of the third factor, defined by the residual variance in SAT-V (and, incidentally, SAT-M) apart from that related to perception of performance and desirability. Loadings of rating-scale variables on this factor are generally low, with the major proportion of the variance absorbed by the first two factors. The highest loadings, however, occur for variables in the areas of intellectual values, creativity, and open-mindedness, for the analytical ability and grasp of abstract variables under intellectual ability, and for some conformity variables. This suggests that the substantial SAT residual may in part still be visible to the faculty in these terms. The intellectual values area may indicate students who deploy their abilities, interests, and energies in directions different from those involved in course work or manifestations of desirability, and the creativity variables may reflect similarly unrelated acts or events in which verbal or symbolic skills are visibly reflected.

The loadings of the SAT residual in the area of open-mindedness, if real, are more difficult to interpret. The best conjecture would seem to be that brighter students may have more interest in intellectual inquiry and exhibit it through continued receptivity to new ideas. The fact that this variance goes beyond performance and desirability may be due to the student's

going beyond what would satisfy the instructor: The brighter student may continue to seek and incorporate new evidence even though the instructor is satisfied.

Summary

A previous study had employed the diagonal method of factoring to partial out that portion of the variance in faculty ratings (of students on a variety of traits) that is related to academic performance, to permit identification of reliable remaining variance related to ratings of general desirability. The present study employed the same data, but focused on desirability apart from raters' perceptions of academic performance rather than on desirability apart from actual performance. Two questions prompted such an analysis: (1) could previous results, based upon a consensus, or average academic performance, be further illuminated by going directly to the rater's perception of performance?, and (2) what traits do faculty see as compatible with or concomitants of their perception of performance?

The results tend to show an absorption in the faculty perception of performance of much of the variance previously associated with dependability, intellectual ability and values, motivation, self-sufficiency/creativity, and maturity in defining desirability apart from academic performance. The results tend, however, to verify or accentuate the contribution of other traits, notably ethicality, likableness, open-mindedness, and altruism. It does appear that desirability is highly related to perception of academic performance, however, and that other areas normally expected to make an honest contribution to performance (e.g., dependability, intellectual ability and values, motivation, and self-sufficiency/creativity) are perceived by

the faculty to do so. Finally, there is remaining reliable variance in SAT and actual grades, as well as in such previously established areas as conformity and extraversion, which is related neither to perception of performance nor desirability.

References

Davis, J. A. Faculty perceptions of students: I. The development of the Student Rating Form. Research Bulletin 64-10. Princeton, N. J.: Educational Testing Service, 1964. (a)

Davis, J. A. Faculty perceptions of students: II. Faculty definition of desirable student traits. Research Bulletin 64-11. Princeton, N. J.: Educational Testing Service, 1964. (b)

Davis, J. A. Faculty perceptions of students: III. Structure of faculty characterizations. Research Bulletin 64-12. Princeton, N. J.: Educational Testing Service, 1964. (c)

Thurstone, L. L. Multiple factor analysis. Chicago: Univer. Chicago Press, 1947.